

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number
WO 2005/018310 A1

(51) International Patent Classification⁷: **A01J 25/11,**
A23C 19/00

Charles [NZ/NZ]; 567 Esdaile Road, Omokoroa, Tauranga
3021 (NZ).

(21) International Application Number:
PCT/NZ2004/000190

(74) Agent: NEWNHAM, Ross, Andrew; Newnham & Co.,
Patent Attorneys, P.O. Box 3206, Auckland 1015 (NZ).

(22) International Filing Date: 20 August 2004 (20.08.2004)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
527738 21 August 2003 (21.08.2003) NZ

(71) Applicant (for all designated States except US): DAIRY
TECH INTERNATIONAL LIMITED [NZ/NZ]; 486
Alexandra Road, Te Awamutu 2400 (NZ).

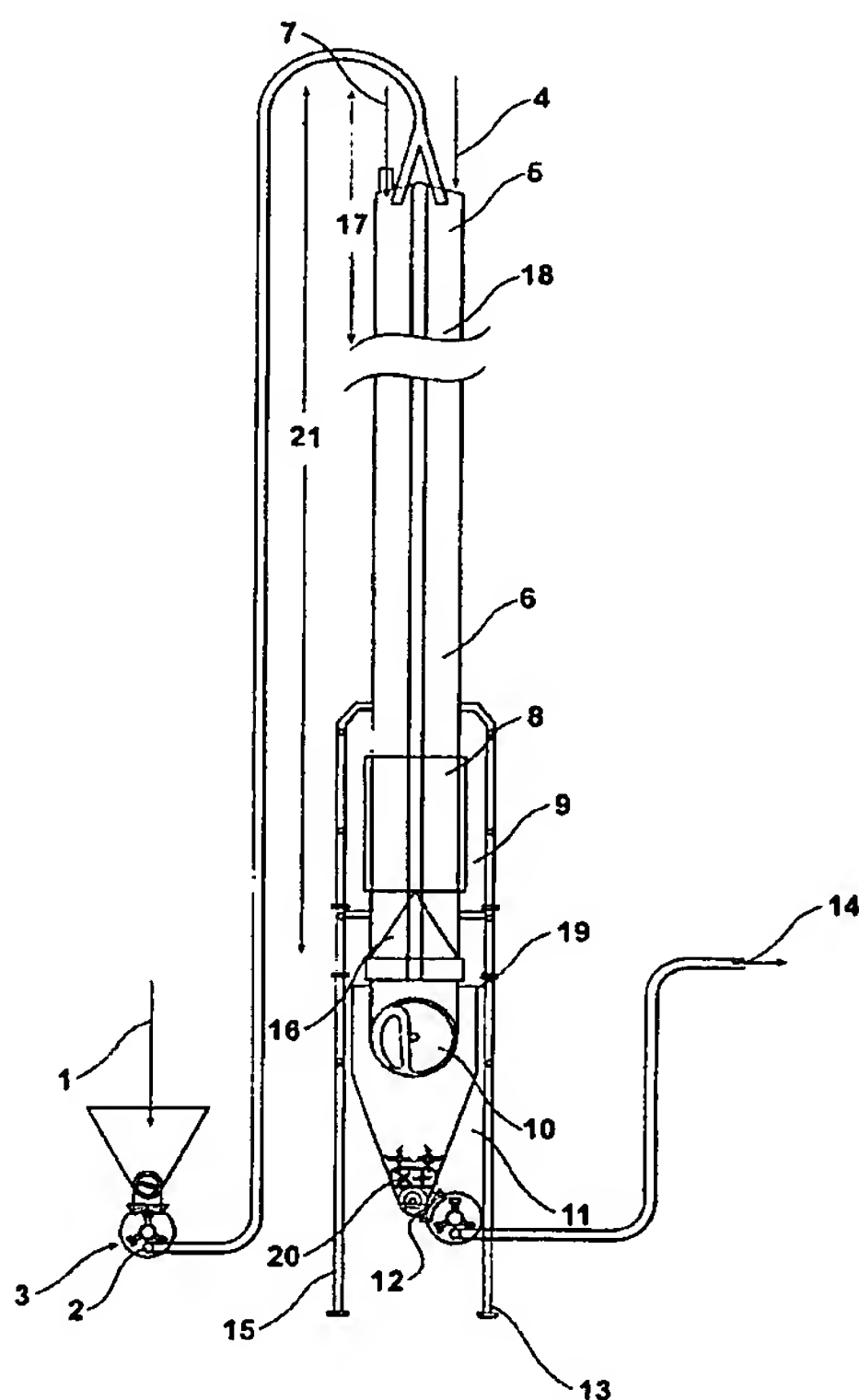
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

(72) Inventor; and

(75) Inventor/Applicant (for US only): MISSON, Gregory,

[Continued on next page]

(54) Title: CHEESE PROCESSING APPARATUS



(57) Abstract: An apparatus for the substantially continuous processing of forming cheese. In one processing method the apparatus can be utilised to process cheese milk (coagulum) through to particulate cheese. The apparatus comprises a de-watering or cheddaring tower 5 including a column 18 having an inlet 4 in which a pillar of cheese can fuse. Drainage manifolds 8 allow the whey to discharge. The column 18 joins with a detritising cutting means 10 provided at the lower end of the column 18. The cutting means 10 removes cheese from the lower end of the pillar as it makes contact therewith. Simultaneously and consequently the cutting means 10 forms a quantity of particulate cheese which is deposited into conveyor means 12 for transport downstream as indicated by arrow 14. Secondary detritising means 20 may be included and preferably both detritising means 10, 20 are mounted in a hopper 11 with the conveyor 12 at the lower end thereof. The inlet 4 may be fed from a hopper 1 incorporated in the inlet 4 to enable particulate cheese to be charged into the column 18. In this manner the apparatus can be utilised in a second processing method to re-process fused or particulate cheese through a further or secondary fusion step back to particulate cheese. Typically this method or processing step is utilised as part of downstream processing such as salting. A plant may involve more than one of the apparatus joined in line to carry out the aforesaid processing methods or steps.

WO 2005/018310 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

— with international search report